



California

TRANSPORTATION PLAN

2040

BASIC PLANNING
ACADEMY
Sacramento, CA
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Office of State Planning



Agenda

1. What is the CTP 2040?
2. Vision and Framework for California's Transportation System
3. The Transportation System
4. Modeling Theoretical Transportation Scenarios
5. Achieving Success
6. What's Next

What is the CTP 2040?



What is the CTP 2040?

A statewide, long-range transportation plan that:

- Is done every 5 years with a 20-year horizon
- Defines goals, policies, and strategies and the future statewide, multimodal transportation system
- Integrates statewide modal plans
- Builds upon Regional Transportation Plans and Sustainable Communities Strategies
- Analyzes future alternatives and policies using robust modeling tools

Federal Legislation

23 CFR 450.200

Federal regulations that requires each state to carry out a **continuing, cooperative, and comprehensive** statewide multimodal transportation planning process, including the development of a long-range transportation plan and statewide transportation improvement program (STIP).

23 USC 135

This federal law requires the development of a statewide long-range transportation plan and statewide transportation program **for all areas of the State**. It requires the State to develop statewide long-range transportation plan with a minimum **20-year forecast period**, which provides for the development and implementation of the **State's intermodal transportation system**.

State Legislation

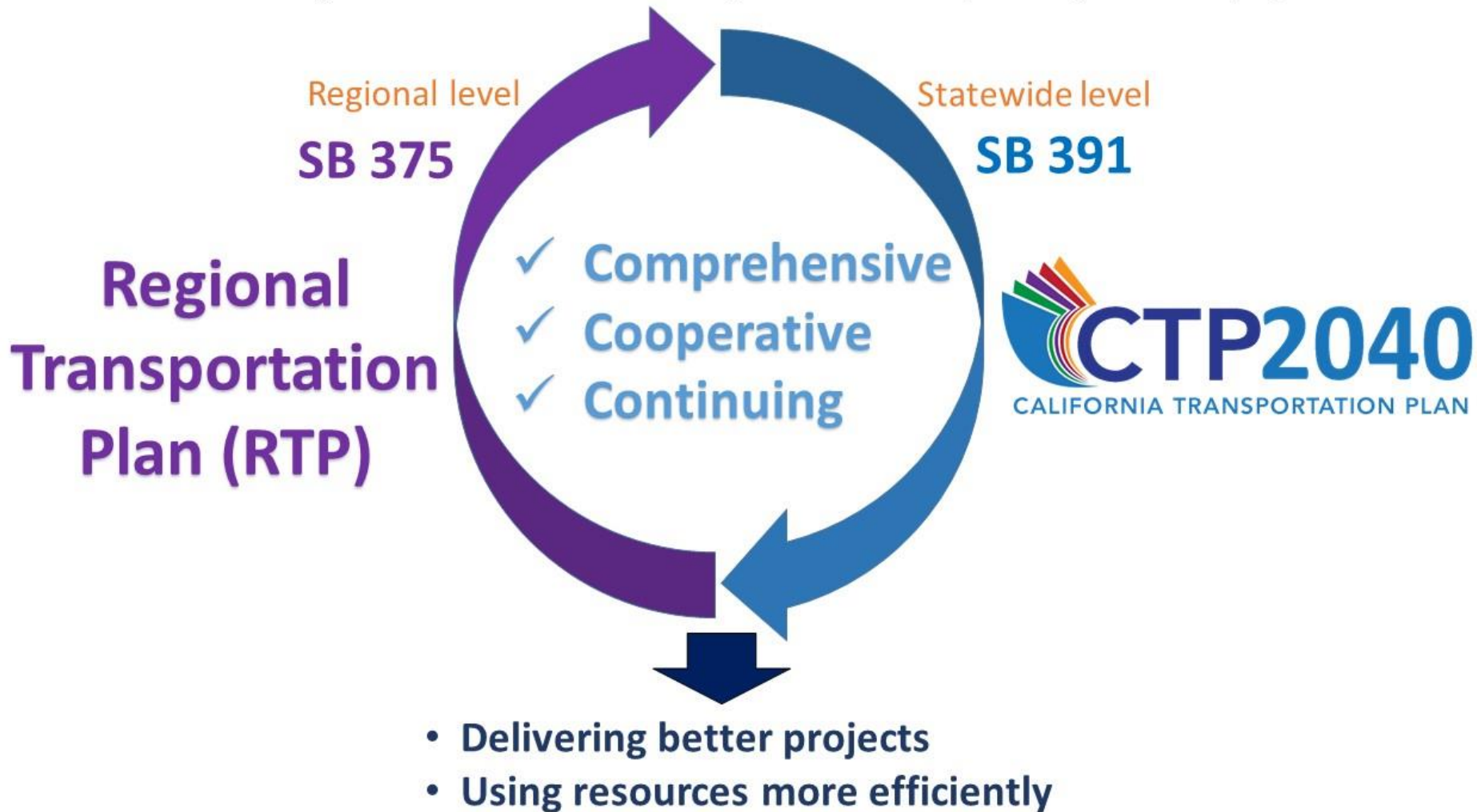
- **AB 32, the Global Warming Solution Act of 2006**, requires reduction of greenhouse gas emissions to 1990 levels by 2020.
- **SB 375** requires sustainable communities strategies (SCS).
- **SB 391** requires Caltrans to update the CTP every five years to show how to achieve statewide greenhouse gas emission (GHG) reduction consistent with Executive Order S-3-05.
- **AB 857 – State Planning Priorities** requires equity, economy, & environment be considered in all planning.
- **SB 743** changes the California Environmental Quality Act (CEQA) criteria to implement GHG emissions reduction.
- **Executive Order S-3-05** calls for emissions to be reduced to 80% below 1990 levels by 2050.

Why it is Important

1. Better understand **interregional travel patterns** and promote system cohesiveness
2. Summary of **trends, challenges** and themes from around the State
3. Forum to **elevate issues** to policy and decision makers and better coordination in general
4. Models what kind of system is needed to reach California's **GHG reduction goals**

Why it is Important

Reducing Greenhouse Gases: Shared Responsibilities SB 375 (Steinberg) and SB 391 (Liu)



CTP Chapters

Chapter 1	Vision and Framework for California's Transportation System
Chapter 2	The Transportation System
Chapter 3	Modeling Theoretical Transportation Scenarios
Chapter 4	Achieving Success

Appendices

1. Performance Measures
2. Transportation System and Non Motorized Facilities
3. Strategies and Performance Measures for Achieving Success
4. Trends and Opportunities
5. Native American
6. Revenues and Expenditures
7. Technical Analysis
8. Recommendations Matrix



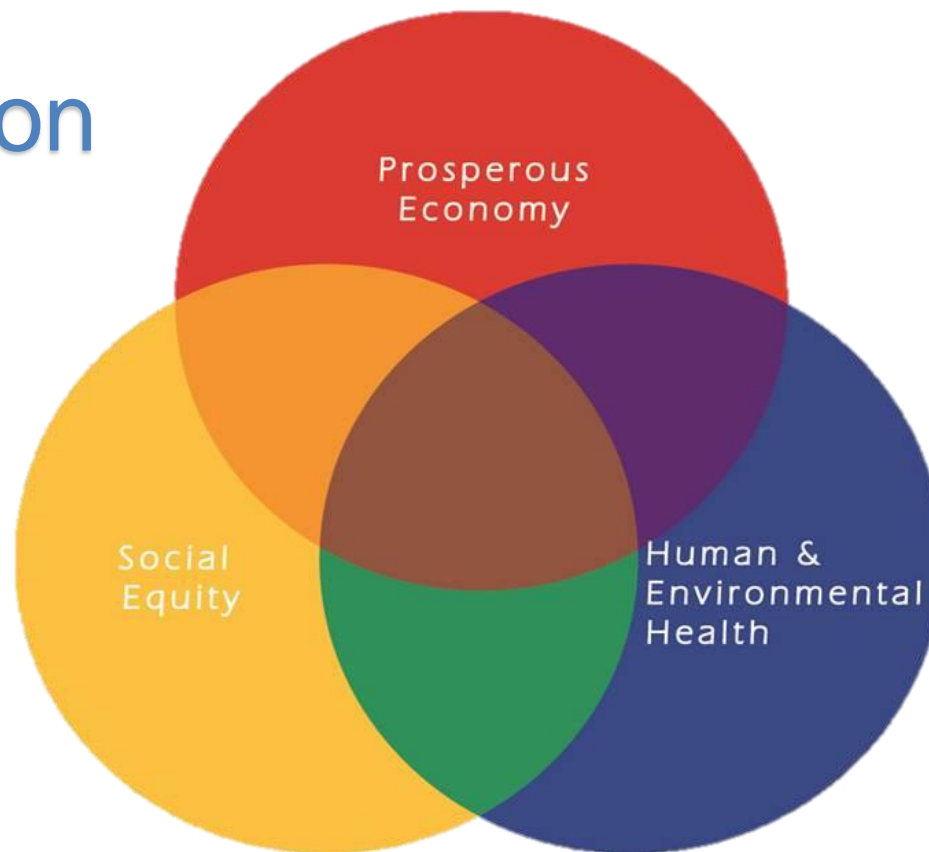
Vision and Framework for California's Transportation System

The CTP 2040 Vision

California's transportation system is **safe**, **sustainable**, universally **accessible**, and **globally competitive**. It provides **reliable** and **efficient mobility** for people, goods, and services, while meeting the State's greenhouse gas emission reduction goals and **preserving** the unique character of California's communities.

CTP – The Next 25 Years

Key to this vision
is the 3 Es of
sustainability:





THE VISION SUSTAINABILITY

California's transportation system is safe, sustainable, and globally competitive. It provides reliable and efficient mobility and accessibility for people, goods, and services while meeting our greenhouse gas emission reduction goals and preserving community character. This integrated, connected, and resilient multimodal system supports a prosperous economy, human and environmental health, and social equity.

THE GOALS



THE POLICIES



Modal Plans

INTEGRATES MODAL PLANS



Programs

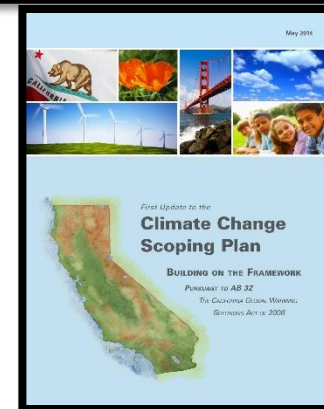
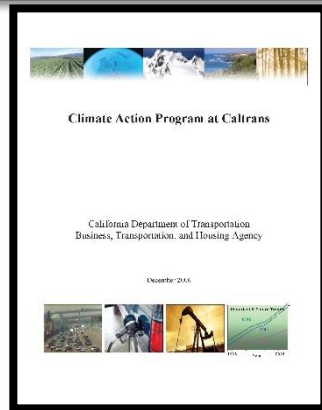
INTEGRATES STATEWIDE PROGRAMS



CALIFORNIA HIGH-SPEED
RAIL



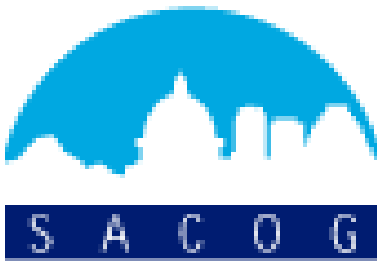
CLIMATE ACTION
PROGRAM



CLIMATE CHANGE
SCOPING PLAN

Regional Transportation Plans

INTEGRATES REGIONAL PLANS AND SUSTAINABLE COMMUNITIES STRATEGIES



The Transportation System



The Transportation System

- Statewide
- Tribal
- Regional and Local
- Opportunities and Challenges
 - Demographic trends
 - Uptick in walking, biking, transit
 - Per capita VMT
 - Technology

Modeling Theoretical Transportation Scenarios

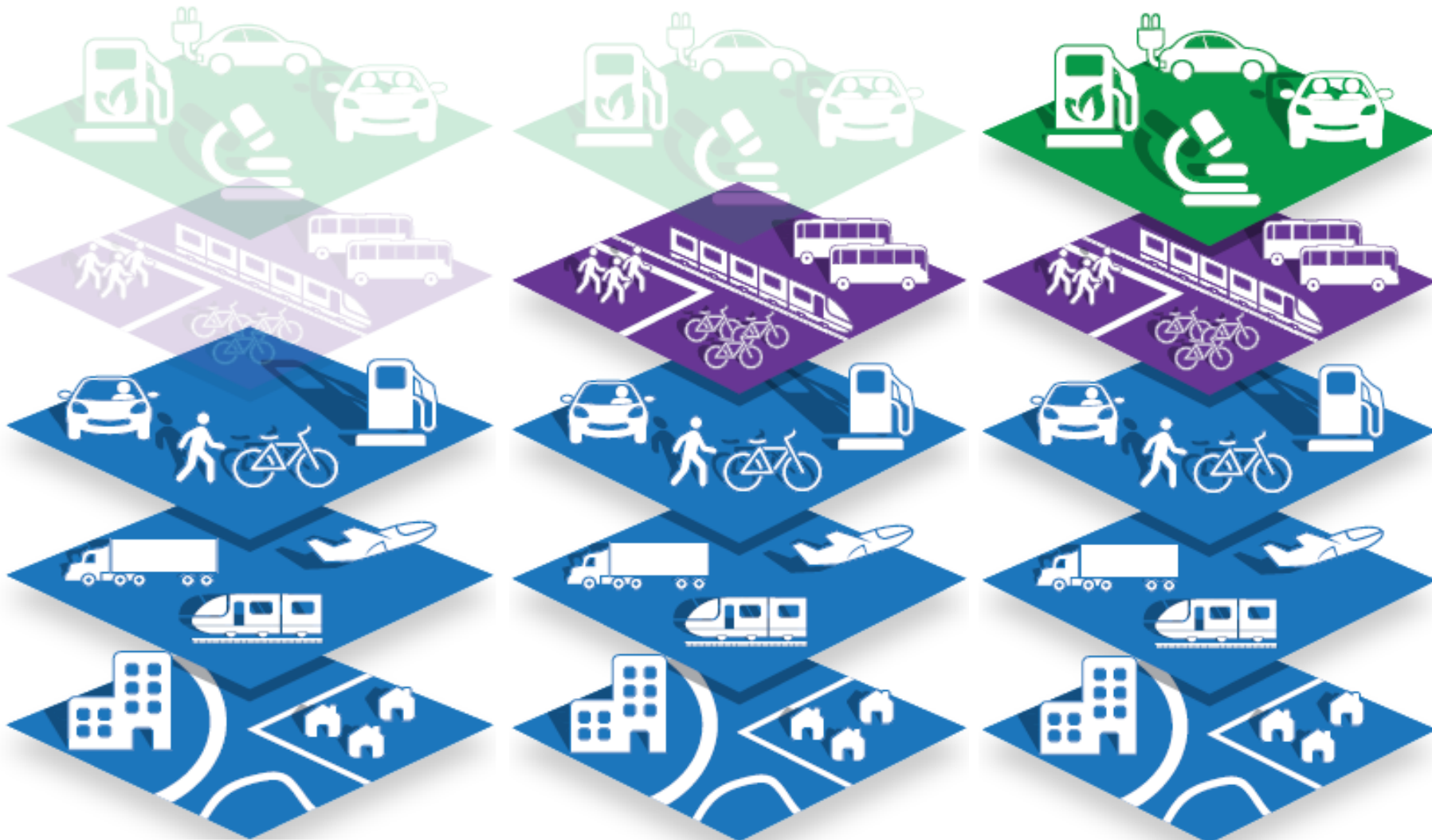


Marco Gonzalez
Caltrans

How will the state achieve maximum feasible emission reductions in order to meet:

- 1990 GHG levels by 2020 (AB 32)
- 80% below 1990 by 2050 (Gov. EO)

CTP Scenarios



SCENARIO 1:
CURRENT MPO AND STATE MODAL PLANS

SCENARIO 2:
CURRENT PLANS + PROPOSED STRATEGIES

SCENARIO 3:
MEETING THE GOALS

Scenario 1: MPO and State Modal Plans



Components:

- MPO Sustainable Communities Strategies land use and transportation plans, effective Spring 2013.
- Caltrans' Modal Plans, including
 - Aviation
 - Freight
 - Interregional Transportation
 - Rail
 - Transit
- The current mix of fuel efficiency and vehicle technology were determined by the ARB Advanced Clean Cars and In-Use Standards.


Scenario 2: Current Plans and Proposed Strategies



Components:

- MPO Sustainable Communities Strategies (same as Scenario 1).
- Caltrans' Modal Plans (same as Scenario 1).
- Fuel and vehicle technologies (same as Scenario 1).
- CTP 2040 package of GHG reduction transportation strategies.

CTP 2040

CATEGORY / STRATEGY		ASSUMPTION	EVALUATION METHOD: SOURCE	VMT REDUCTION (ESTIMATED)
 DEMAND MANAGEMENT				
1	Telecommute/ Work at Home	2.1% increase in work at home rate	Off-Model: SACOG	-0.39%
2	Increased carpoolers	5% increase in carpool vehicles	Off-Model: Calculated using CSTDm data	-2.9%
3	Increased Car Sharing	Net 5% increase in adoption rates -- short distance travel	Off-Model: MTC, ARB Draft Policy Brief	-1.1%

CTP 2040

CATEGORY / STRATEGY

ASSUMPTION

EVALUATION METHOD: SOURCE


VMT REDUCTION (ESTIMATED)




MODE SHIFT

4	Transit Service Improvements (Urban and Intercity – rail, bus and ferry)	Transit speeds increased by 50%; headways doubled, free transfers, reduced transfer wait times	CSTDM	-6% (includes Transit Service Improvements and HSR fare reductions)
5	High-Speed Rail	Maximize incentives for High-Speed Rail Ridership	CSTDM	Included as part of transit service improvements
6	Bus Rapid Transit	Ridership change from converting Local Bus Routes to BRT	Off Model: TCRP 118, CSTDM Data	-0.07%
7	Expand Bike	Doubled bicycle shares	Off Model: CSTDM Data	-0.41%
8	Expand Pedestrian	Double walk shares	Off Model: CSTDM Data	-0.43%
9	Carpool Lane Occupancy Requirements	Increase minimum 2+ occupancy to 3+	CSTDM	-0.80%
10	Increased HOV Lanes	Added HOV lanes, Interregional connectors; Fill missing gaps (mixed flow lanes converted to HOV)	Off Model; Estimate	-1.0%

CTP 2040

CATEGORY / STRATEGY		ASSUMPTION	EVALUATION METHOD: SOURCE	VMT REDUCTION (ESTIMATED)
 TRAVEL COST				
11	Implement Expanded Pricing Policies	Utilize pricing and vehicle fees to fund infrastructure improvements, manage congestion and improve roadways	CSTDM	-17%

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CATEGORY / STRATEGY		ASSUMPTION	EVALUATION METHOD: SOURCE	VMT REDUCTION (ESTIMATED)
 OPERATIONAL EFFICIENCY				
12	Incident/Emergency Management	Implementation of Caltrans System Management and Operations Plan	Off Model: Caltrans	-1.0% equivalent VMT savings
13	Caltrans' (TMS) Master Plan	Implementation of TMS Master Plan	Off Model: Caltrans	-1.2% equivalent VMT savings
14	ITS/TSM	Implementation of ITS/TSM strategies	Off Model: SACOG	-0.62%
15	Eco-driving	Reduced fuel consumption through changes in driving habits	Off Model: ARB Policy Brief	-0.23% equivalent VMT savings

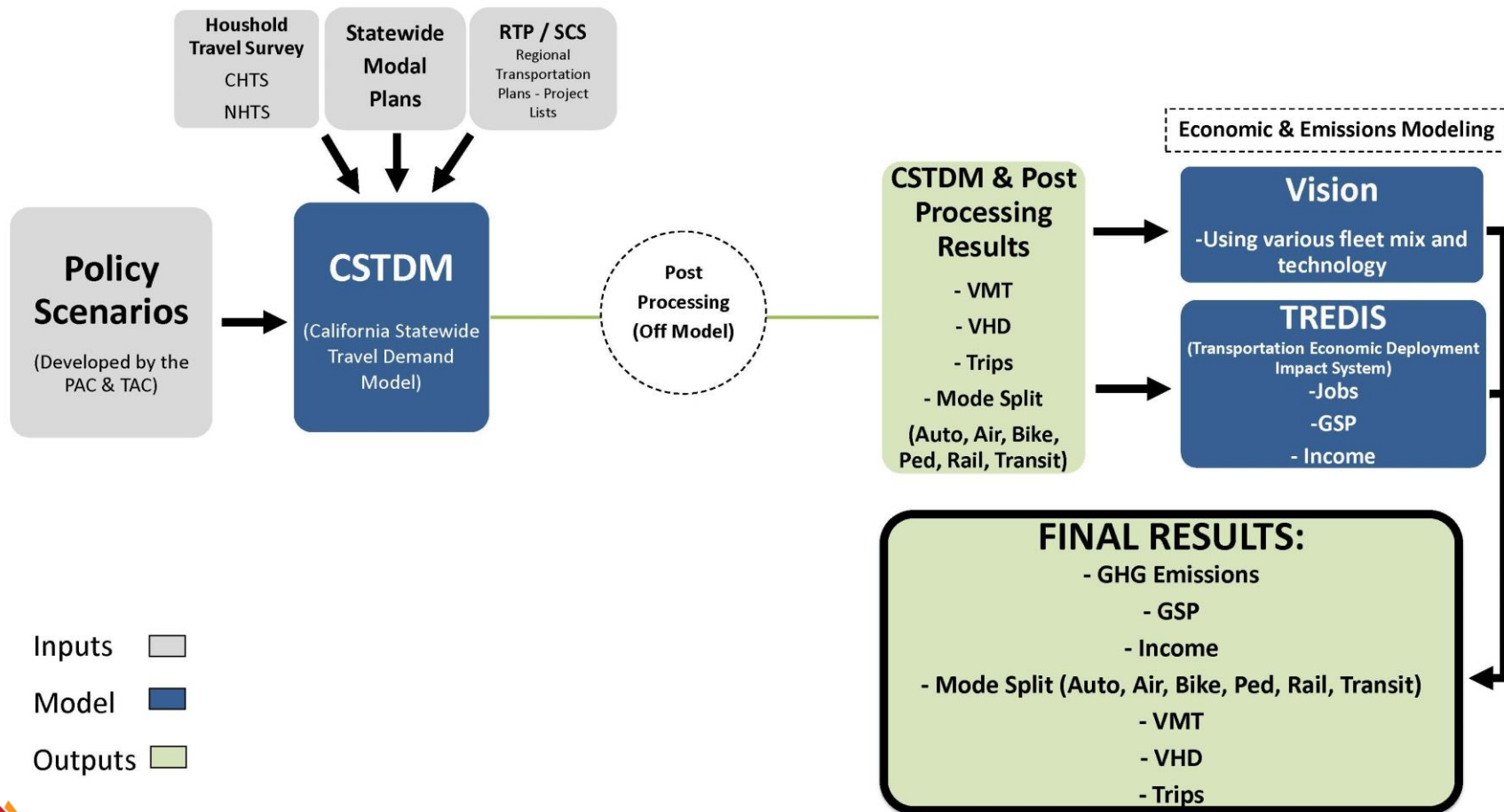
Scenario 3: Meeting the Goals



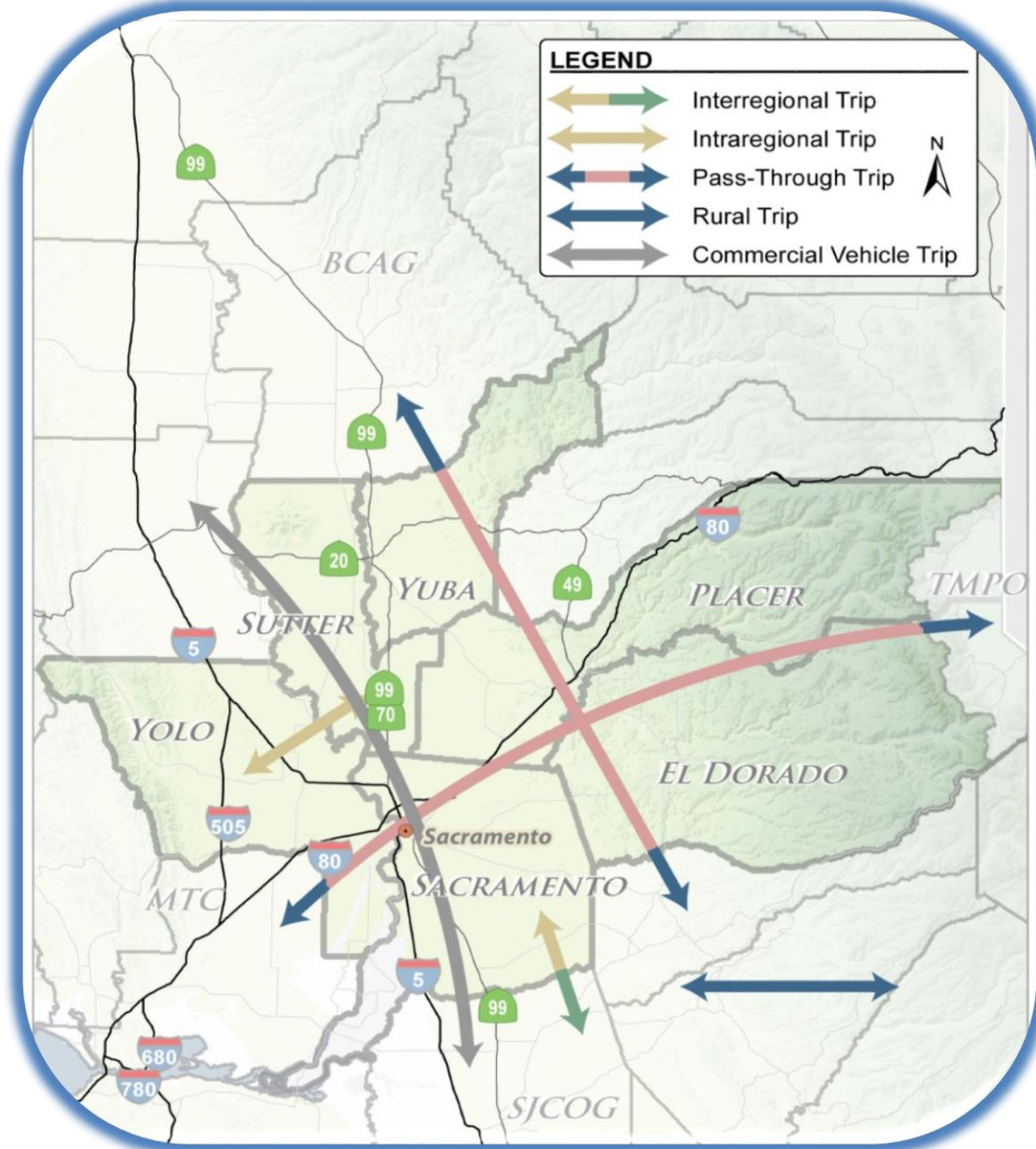
Components:

- MPO Sustainable Communities Strategies (same as Scenario 1).
- Caltrans' Modal Plans (same as Scenario 1).
- Fuel and vehicle technologies (same as Scenario 1).
- CTP 2040 package of GHG reduction transportation strategies (same as Scenario 2).
- A fleet mix of additional future fuel efficiencies and vehicle technologies, as assessed by ARBs Vision for Clean Air model, designed to meet GHG emission reduction goals for 2020 and 2050.

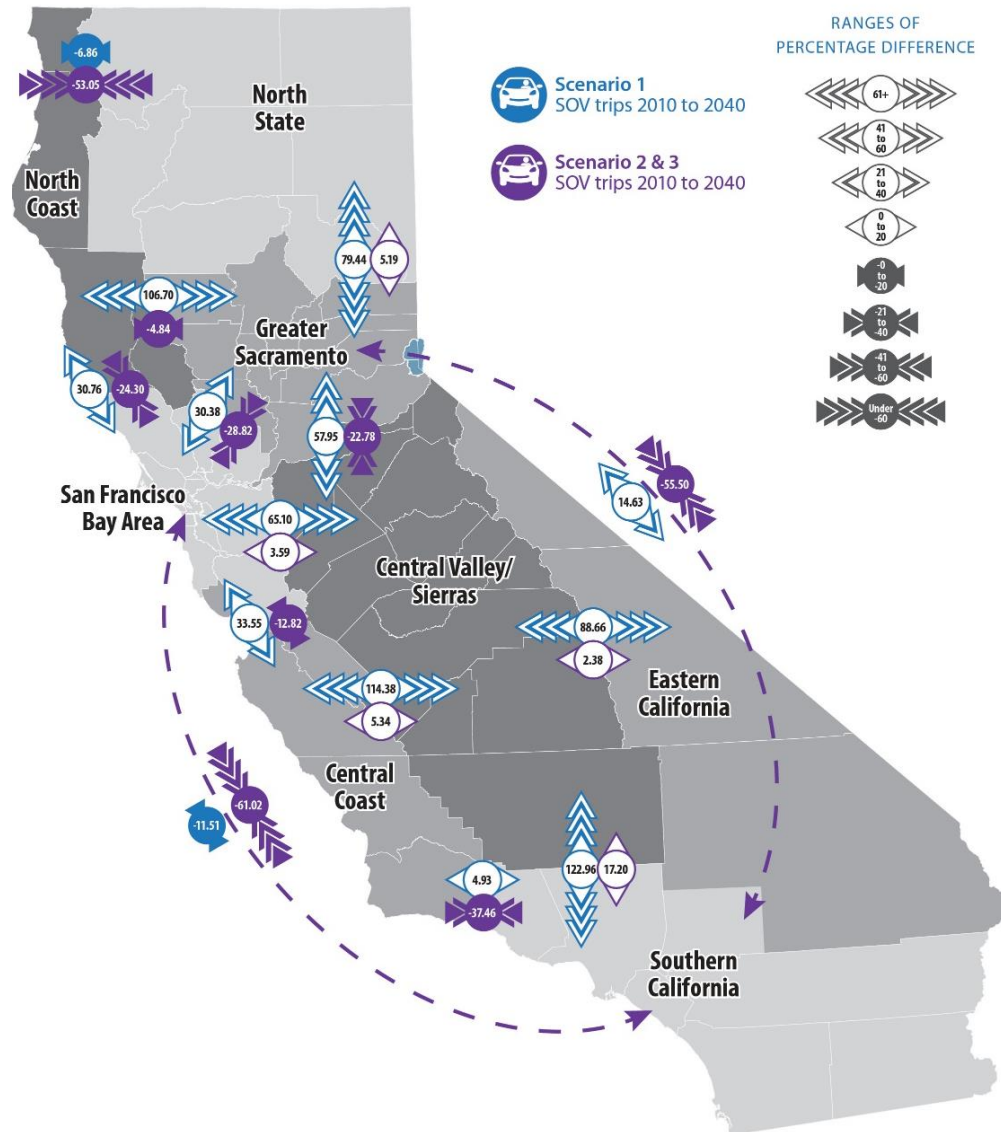
Modeling our Scenarios



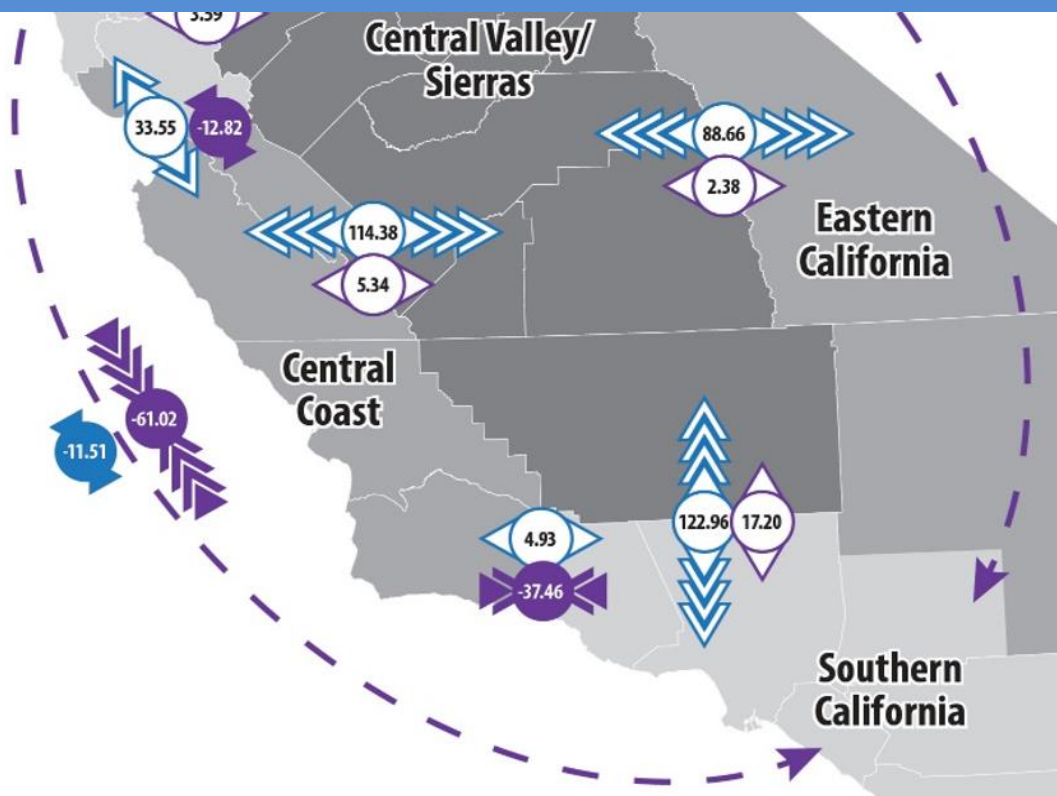
Trip Types Captured by Statewide Model



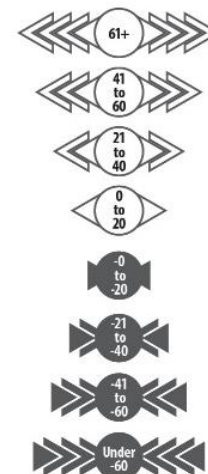
Interregional SOV Trips Scenario Comparison for 2040



Interregional SOV Trips – Southern CA



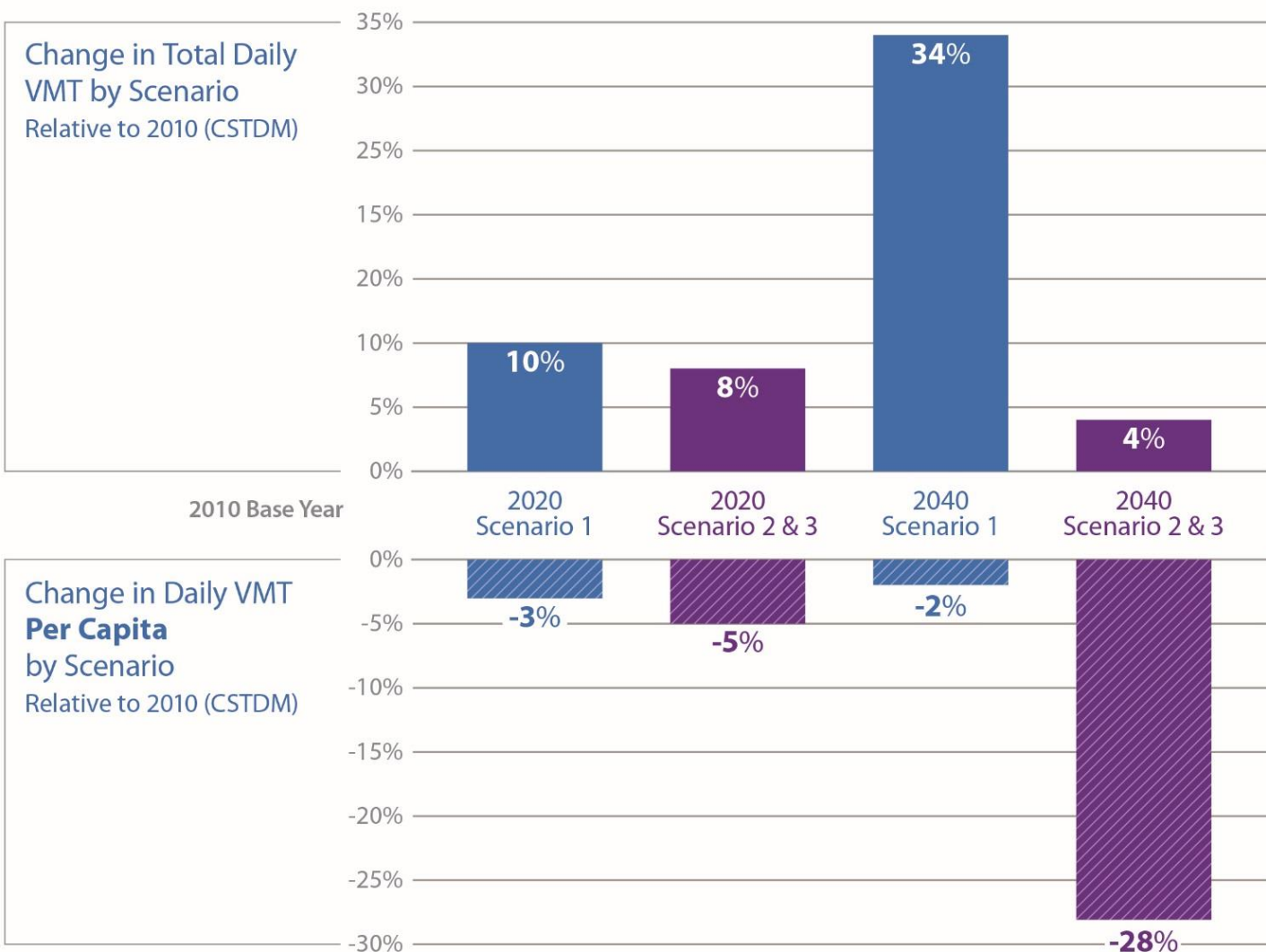
RANGES OF
PERCENTAGE DIFFERENCE



ITSP Regions

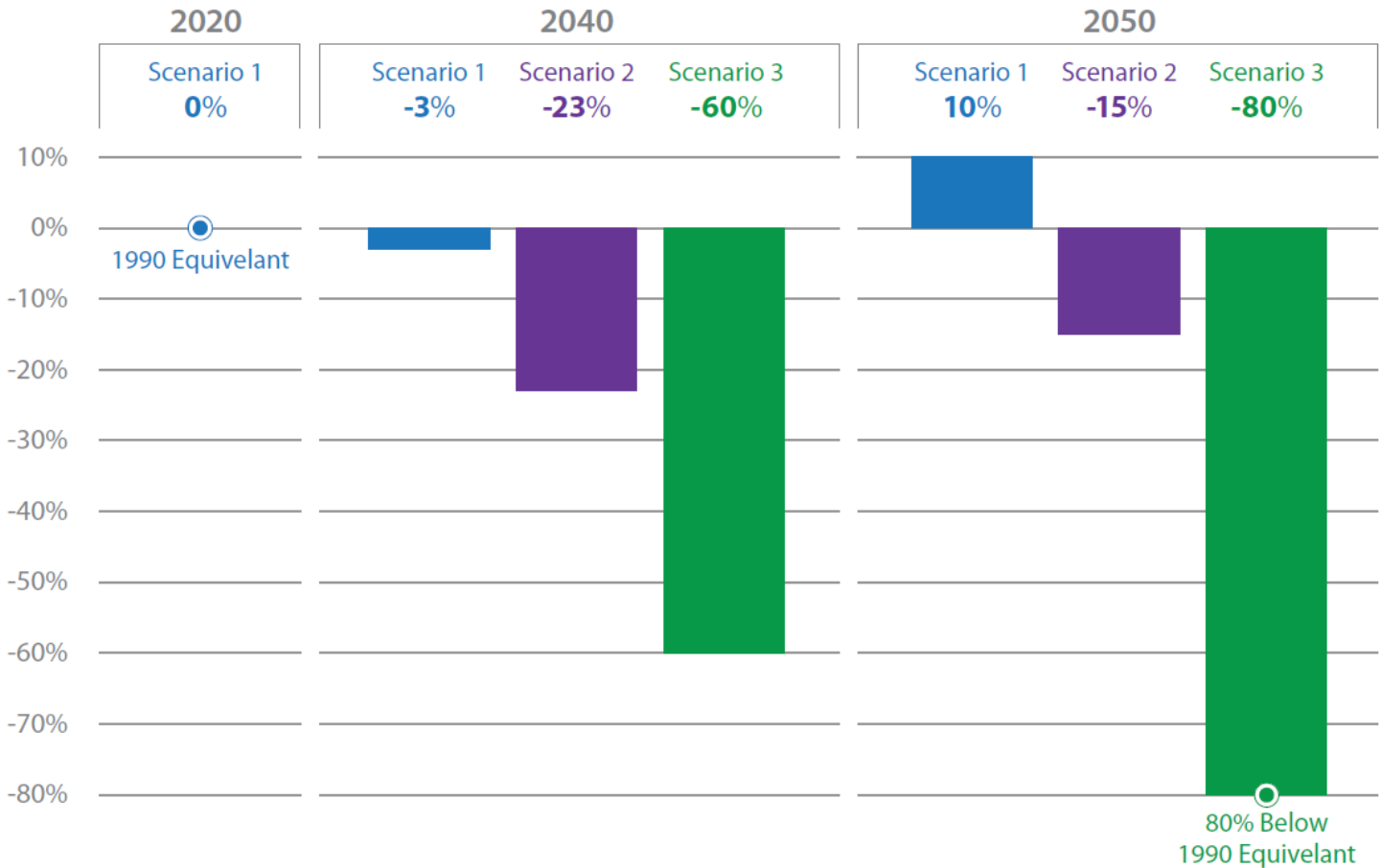
	Scenario 1 Totals	Scenarios 2 & 3 Totals
San Francisco Bay Area to/from Southern California	-11.51%	-61.02%
Central Valley/Sierras to/from Southern California	122.96%	17.20%
Central Coast to/from Southern California	4.93%	-37.46%

Change in Total and Per Capita Daily VMT Relative to Scenario 1 2010



Transportation GHG Reduction by Scenario

California Greenhouse Gas Emissions Change



One Way to Meet the Goals

Scenario 3 Assumptions

LDV

- New vehicle fuel efficiency is four times higher by 2050
- Approximately 20 million LDV ZEVs on the road in 2050

HDV

- New vehicle fuel efficiency is fifty times higher by 2030
- HDV ZEVs will represent 12% of all sales by 2030

Achieving Success



Achieving Success



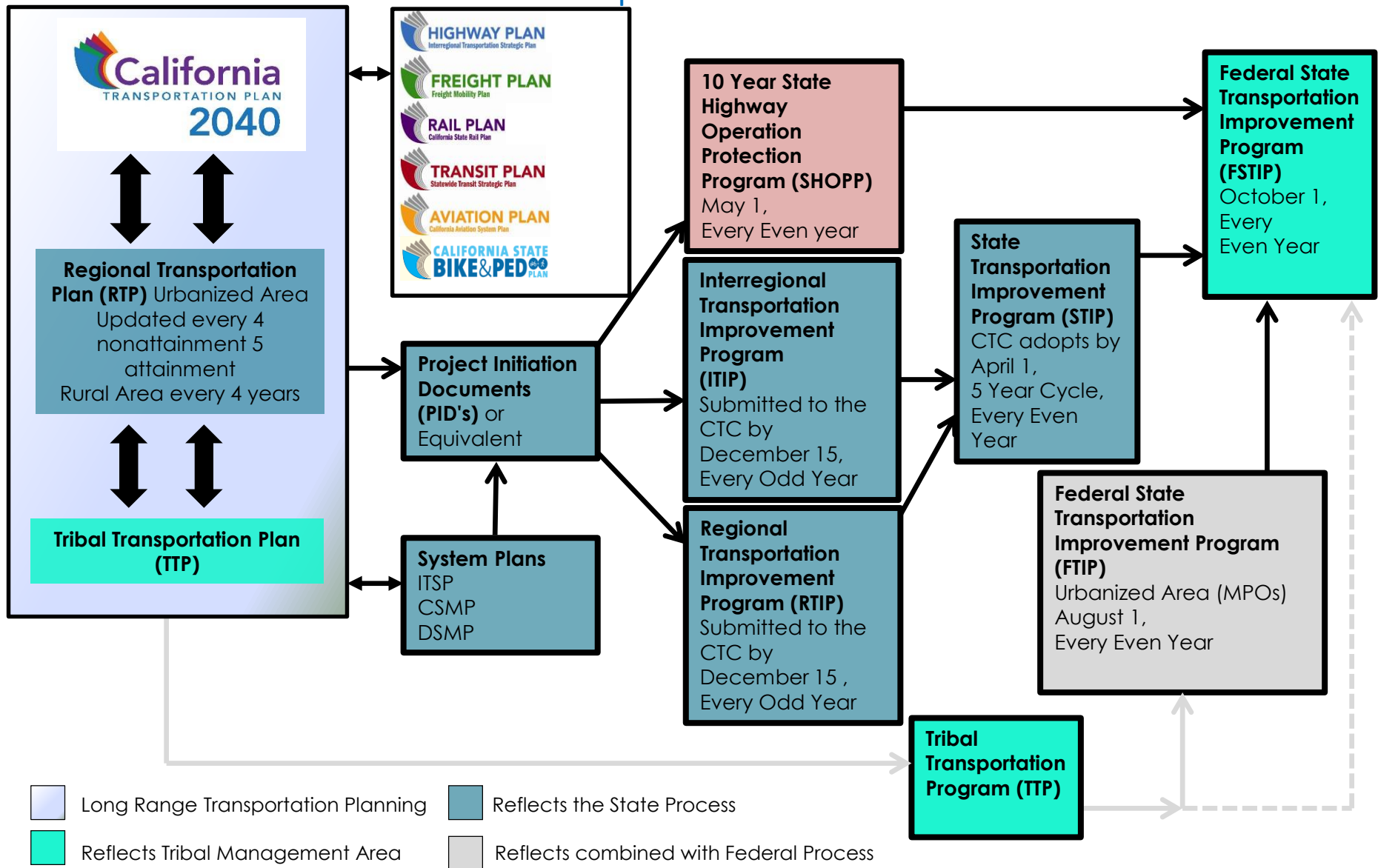
Chapter 4

Implementation Highlights

- Improve transit/complete HSR Phase 1 by 2029
- Fix it First
- Improve efficiency and technologies of highways and roads
- Improve freight efficiency and the economy
- Improve communities
- Reduce transportation-system deaths and injuries
- Expand the use and safety of bike and pedestrian facilities
- Make our vehicles and transportation fuels cleaner
- Improve public health and achieve climate/environmental goals
- Secure permanent, stable, and sufficient transportation revenue

Transportation Project Planning and Programming

Partnerships and Communication



What's Next



Where we are, and What's Next

CTP Implementation

- **Summer 2017** – Finalize priority objectives
- **Fall 2017** – Adopt Plan
- **Fall 2017 to Summer 2018** – Monitor and document performance

CTP Guidelines

- **May 2017** – San Diego CTC Meeting

CTP 2050

- **December 2020!**

Questions

- 1. The CTP is done every ____ years, with a ____ year planning horizon.**
- 2. Is the CTP Financially Constrained?**
- 3. SB 391 asks how Ca. will meet 1990 GHG levels by ____, and 80% below 1990 levels by ____.**

For More Information...



Check out the CTP 2040 Website at:
www.californiatransportationplan2040.org



For Questions, Contact:
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